

# *The Heterodyne*

*Newsletter of the West Valley Amateur Radio Association*

## **February Meeting**

**Electronics From the Ground Up**  
**by Ron Quan, KI6AZB**

**Wednesday February 11**  
**Meeting Starts at 7pm**

Meeting Location:  
American Red Cross,  
Silicon Valley Chapter  
2731 N. First Street at Plumeria Dr  
(southwest corner) in San Jose  
Map at [www.wvara.org/meetings.html](http://www.wvara.org/meetings.html)

WVARA Repeaters (W6PIY)		
Band	Frequency	PL
6 Meters	52.580- MHz	151.4 Hz
2 Meters	147.39+ MHz	151.4 Hz
1.25 Meters	223.96- MHz	156.7 Hz
0.70 Meter	441.35+ MHz	88.5 Hz
0.23 Meter	1286.2- MHz	100 Hz

## **Club Net**

WVARA's club net is on the W6PIY repeaters each Tuesday at 8:30 pm. All repeaters are linked together during the net. The net script can be found at [www.wvara.org/net.html](http://www.wvara.org/net.html).

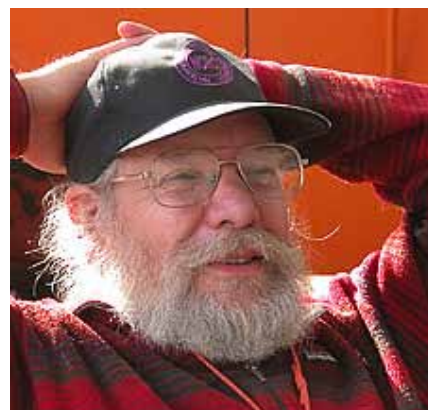
**Visitors Are Welcome!**

## **President's Letter**

### ***My Efforts to Learning CW***

An old Elmer, Bart Rowlett, WB6HQQ(SK) said that you'll have more fun if you learn CW. Hearing him and wanting a low-power, low-equipment way to operate, I have spent the last year trying to learn CW for the third time. (The first time was for my novice and the second was for my extra.) I have spent many hours listening to the W1AW code practice broadcasts, translating number plates into CW as I drive the freeways, contacting the W1AW portable operations, contacting DX stations, and operating in CW contests. I've managed to get so I can mostly copy W1AW code practice at 13 WPM or so, but there are some short cuts that let me run CW and DX at much higher speeds.

Learning CW is like learning a language. A long time ago, I learned German well enough to use it with native German speakers in Europe. My aha moment was when I realized I was no longer translating to English, I was thinking in German. That one change saved a lot of time and permitted me to keep up with the conversation.



Similarly, there are several ways to copy CW. The basic way is to recognize and write or type the letters. A 1935 radio clerk had to operate this way to copy code groups. It is like translating into English. If you can copy code groups at a particular speed, you can probably copy anything that comes along. Copying call signs is similar, but a short cut is to remember the whole call sign in CW and then write the letters. Copying English text can happen by recognizing the starts of words and then verifying that is actually what is being sent. Good CW operators start recognizing certain sequences. The words "the" and "and" are common and can be recognized as a group, and not just the sequence of letters. CQ is another. Finally, you can just recognize the CW and not even bother to translate it into letters.

To contact a DX station, you need to be able to copy his call and follow his instructions. But DX speak is really a very small vocabulary compared with rag chewing or copying W1AW code practice. You can take several tries to copy the call, with the last pass being a verification pass to be sure you got it right. The rest of the vocabulary is simple. 5NN is the exchange. TU says the DX is ready for the next caller. ? or AGN asks for a repeat. And you need to recognize your call. If the DX sends only part of your call, send your call again. It seems simple, and is much easier than copying general text.

Running search and pounce in a CW contest is another good way to build confidence and the ability to operate CW. The exchanges are usually simple, and you have several chances to copy the call sign. Again, the additional vocabulary is small. Give it a try and have fun.

After a while, you should be good enough to run in a contest. (I'm not there yet.) You will need to be able to copy a call sign the first time as well as the exchange. It is easy to practice as you wait in a contest pileup. Try to copy what the station running the frequency is copying and you'll know when you're ready.

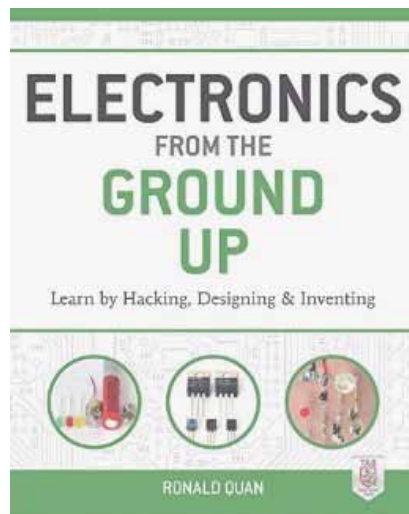
73, Bill - AE6JV

## ***About the Meeting***

### **Electronics from the Ground Up by Ron Quan, KI6AZB**

The next WVARA meeting will be this Wednesday, February 11, at 7pm. Our speaker, Ron Quan, (KI6AZB) will be giving a presentation on "Electronics from the Ground Up". Ron has written another top selling book. You may remember he spoke to WVARA a year ago about his previous book, "Build Your Own Transistor Radios". Now he's come out with a sequel: "Electronics from the Ground Up", McGraw-Hill, 2015. It is a book of do-it-yourself experiments through which the reader will discover and learn the inner workings of electronics through innovative experiments. Experiments progress from basic electricity to circuits for RF and communication systems.

Ron Quan, author of the books "Build Your Own Transistor Radios" and "Electronics from the Ground Up," has done design engineering of video and audio equipment for over 30 years. He designed a CRT TV monitor at Ampex, a wideband FM detector for an HDTV tape recorder at Sony Corporation, and a double-color-subcarrier-frequency (7.16 MHz) differential phase measurement system for Macrovision, where he was Principal Engineer. At Hewlett Packard, he designed a bar code reader integrated circuit and developed a family of low powered bar code readers. He holds 80 patents, and a BSEE degree from UC Berkeley.



Meeting Location: Silicon Valley Chapter of the American Red Cross, 2731 N. First Street at Plumeria Drive (southwest corner) in San Jose. Visitors are welcome, and of course there will be chocolate chip cookies.

If you haven't been to the Red Cross, "talk-in" is usually available on the Association's repeaters. Best choice would be 2m/220.

And for those who are hungry, several of us will be eating dinner prior to the meeting at the Burger King at 2532 Channing Avenue, just off Seaboard Avenue and near the corner of Trimble Road and De La Cruz Boulevard. Map of restaurant: <http://mapq.st/3-l0rpFmro>

Hope to see you there!

Club Web Page: [www.wvara.org](http://www.wvara.org)

Jim, K6EI

**SB QST @ ARL \$ARLB004  
ARLB004 FCC "Paperless" Amateur Radio License Policy Goes into  
Effect on February 17**

ZCZC AG04  
QST de W1AW  
ARRL Bulletin 4 ARLB004  
From ARRL Headquarters  
Newington CT January 29, 2015  
To all radio amateurs

**SB QST ARL ARLB004  
ARLB004 FCC "Paperless" Amateur Radio License Policy Goes into  
Effect on February 17**

Starting February 17, the FCC no longer will routinely issue paper license documents to Amateur Radio applicants and licensees. The Commission has maintained for some time now that the official Amateur Radio license authorization is the electronic record that exists in its Universal Licensing System (ULS), although the FCC has continued to print and mail hard copy licenses. In mid-December the FCC adopted final procedures to provide access to official electronic authorizations, as it had proposed in WT Docket 14-161 as part of its "process reform" initiatives.

Under the new procedures, licensees will access their current official authorization ("Active" status only) via the ULS License Manager. The FCC will continue to provide paper license documents to all licensees who notify the Commission that they prefer to receive one. Licensees also will be able to print out an official authorization - as well as an unofficial "reference copy" - from the ULS License Manager.

"We find this electronic process will improve efficiency by simplifying access to official authorizations in ULS, shortening the time period between grant of an application and access to the

official authorization, and reducing regulatory costs,” the FCC Wireless Telecommunications Bureau (WTB) said. According to the WTB, the new procedures will save at least \$304,000 a year, including the cost of staff resources.

In comments filed November 5, the ARRL had strongly recommended that the FCC “give serious consideration to continuing a default provision for sending an initial paper license document to new licensees in the Amateur Radio Service, along with detailed, simple instructions for how to make the elections set forth in the notice relative to future modified or renewed licenses.”

The FCC said that applicants or licensees who include a valid e-mail address under “Applicant Information” in the ULS will receive an official electronic authorization via e-mail. New license applicants who do not provide a FCC Registration Number at the examination point will receive a printed license as well as an FRN and a temporary password to access the Commission Registration System (CORES).

The ARRL and other Amateur Radio commenters also worried that unless a license document is printed on distinctive paper stock, its authenticity could be questioned in such situations as obtaining vanity call sign license plates. To address this, the FCC said the watermark “Official Copy” will be printed on each page of an official authorization that a licensee prints out from the ULS. The WTB recently stopped using distinctive paper stock to produce hard copy licenses and has been printing these on “standard, white recycled paper.” The Bureau noted that the distinctive paper stock it had used was six times more expensive than the plain recycled paper it now uses.

The ULS License Manager now includes settings that allow licensees to notify the WTB that they prefer to receive official authorizations on paper. Once the final procedures go into effect designating electronic access as the default, licensees can change the ULS License Manager setting so that the Bureau will print and mail a license document. Licensees also may contact FCC Support via the web at, [http://esupport.fcc.gov/index.htm?job=contact\\_fcc\\_support](http://esupport.fcc.gov/index.htm?job=contact_fcc_support) , or via telephone or mail to request paper licenses.

The FCC rejected as “outside the scope of this proceeding” an ARRL argument that Section 97.23 of the Amateur Service rules be amended to replace “licensee mailing address” with other alternatives, including e-mail, for use in Commission correspondence. The rule, which requires that any licensee mailing address be in an area where the licensee has US Postal Service access, has precluded FCC issuance of location-specific call signs in such areas as Navassa Island (KP1) and some Pacific islands.

NNNN  
/EX



November 1, 2014

Dear Amateur Radio & DX Enthusiast,

Next year is the 66th consecutive year for the International DX Convention. The meeting, sponsored by the Northern California DX Club, will be held at the beautiful Visalia Convention Center in downtown Visalia, CA. IDXC, the premier DX Convention in the United States, is attended by over 800 serious DX'ers and contesters looking to improve their skills, their stations and see the latest equipment.

#### Convention Highlights:

- Full day of training on Friday, April 17, 2015: Contesting and DXing Techniques
- Friday Evening Dinner Options: TopBand, IOTA, and Contesting
- Open DX Forum
- 15-20 DX & Technical Seminars
- 35-40 Exhibitors in large Exhibit Hall
- QSL Card Checking
- Great Raffle Prizes
- Eyeball QSOs w/DX Friends
- Excellent Keynote Speakers
- Access to great California vacation destinations (see description on website)
- Registration Starts: 12-08-2014
- Website: [dxconvention.org](http://dxconvention.org)

We intend to make IDXC 2015 the best DX Convention ever, and hope you'll be able to join us.

Sincerely,

John Miller, K6MM  
Kevin Rowett, K6TD  
Rich Seifert, KE1B  
IDXC 2015 Co-Chairmen





**Saturday, April 18<sup>th</sup>, 2015 – Mountain View, CA**

# AMATEUR RADIO LICENSE TESTING

**This session is produced by the Bay Area Educational Amateur Radio Society – Member W5YI VEC**

## Study Session, Followed by Exam



**When:** Saturday, April 18<sup>th</sup>, 2015  
8:00am – 5:00pm

**Where:** Mountain View, CA

**Fee:** \$30.00 at the Door

**Sponsored by:**

SPECS, Southern Peninsula Emergency  
Communication System  
<http://specsnet.org/>

*Special thanks to Google for providing the venue*

**Questions:** Ross Peterson [wb6zbu@arrl.net](mailto:wb6zbu@arrl.net) or 650-349-5349

**Register:** [www.baears.com](http://www.baears.com)



Class size is limited, reservations are required.

Prospective Hams should have an active Ham as a mentor to assist in  
the familiarization with amateur operation

## Reserve Your Space - Be a Ham!



Can't make this class? We can notify  
you of the next date and  
location...contact us.



Palo Alto, California, USA on 20 - 22 March 2015

The 2015 SARA Western Regional Conference will be held at Stanford University in Palo Alto, California on Friday, Saturday and Sunday, 20 - 22 March 2015. The meeting will include a visit the Kavli Institute for Particle Astrophysics and Cosmology (KIPAC).



**Call for papers:** Papers are welcome on subjects directly related to radio astronomy including hardware, software, education and tutorials, research strategies, observations and data collection and philosophy. If you wish to present a paper please email a letter of intent, including a proposed title and abstract to the conference coordinator at [westernconference@radio-astronomy.org](mailto:westernconference@radio-astronomy.org) no later than 31 December 2014.

Be sure to include your full name, affiliation, postal address, and email address, and indicate your willingness to attend the conference to present your paper. Submitters will receive an email response, typically within one week.

**Presentations and proceedings:** In addition to presentations by SARA members, we plan to have speakers from the Stanford University faculty, and possibly KIPAC. Papers and presentations on radio astronomy hardware, software, education, research strategies, philosophy, and observing efforts and methods are welcome. Formal proceedings will be published for this conference. If presenters want to submit a paper or a copy of their presentation, we will make them available to attendees on CD.

**Basic schedule:** Our first day will include a visit to the KIPAC facilities at Stanford Linear Accelerator Center (SLAC). The next two days' meetings will take place on the Stanford University campus and will include presentations by members and guest speakers.

**Getting there:** Fly into San Jose or San Francisco airports and rent a car to drive to Palo Alto.

**Registration:** Registration for the 2015 Western Regional Conference is just US\$55.00. This includes breakfast and lunch on Saturday and Sunday. Payment can be made through PayPal, [www.paypal.com](http://www.paypal.com) by sending payment to [treasurer@radio-astronomy.org](mailto:treasurer@radio-astronomy.org). Please include in comments that the payment is for the **2015 Western Regional Conference**. You also can mail a check payable to SARA, 2189 Redwood Ave,

Washington, IA 52353, USA. Please include an e-mail address so a confirmation can be sent to you when we receive your payment.

**Hotel reservations:** [Marriott Courtyard Palo Alto Los Altos](#)

**Last day to book by:** 3/5/15

Marriott hotel(s) offering SARA a special group rate:

**Courtyard Palo Alto Los Altos** for 129.00 USD per night

[Book your group rate: SARA >>](#)

**What to wear:** Our conference settings are casual.

**Saturday night dinner:** We will make a group dinner reservation at a local restaurant for Saturday night.

**Additional Information:** Additional details will be published online at [www.radio-astronomy.org/meetings](http://www.radio-astronomy.org/meetings) and in the SARA journal, *Radio Astronomy*, as we get closer to the conference date. Please contact conference coordinator David Westman if you have any questions or if you would like to help with the conference: [westernconference@radio-astronomy.org](mailto:westernconference@radio-astronomy.org).

WVARA Net Check-Ins (W6PIY)					
Each Tuesday at 8:30 PM					
All Repeaters Linked Together During Net					
Call Sign	Name	01/13/15	01/20/15	01/27/15	02/03/15
AA6RB	Roy		X	X	X
AB6XS	Kevin		X		
AE6JV	Bill		X		X
AF6AE	Bill	X		X	
K6BRF	Bert	X	X		X
K6QFO	Mike			X	
K6WAR	Bill	X			
KA6AMB	Mark	X	X	X	X
KD6VOR	Marv	X	X	X	
KF6EMB	Svend	X	X	X	X
KF6OTD	Gwen	X			
KG6SBN	Marcia	X			
KI6SLX	Peri				X
KJ6ZZI	Michael	X			
KK6VF	Kevin	NET	NET	NET	NET
KS6PD	Steve	X		X	X
NU6P	John			X	
W6HOC	Howard	X		X	X
W6PK	Phil				X
WA6QYS	Lou	X			
WB6KHP	Dave	X	X	X	X
Total		14	9	11	11



## **Items For Sale By George, N6NKT:**

**Hy-Gain TH-7DX, 7 Element, Tri-Band, 10/15/20M \$150**

Manual available at <http://www.hy-gain.com/support.php?productid=TH-7DX>  
Down from Palo Alto ARC office, disassembled and located in Cupertino

**KLM KT-34, 4 Element, Tri-Band, 10/15/20M \$200**

**Boonton 92EA RF Voltmeter \$200**

Contact George Williams, N6NKT, n6nkt at yahoo dot com

Send Buy and Sell information to: het\_editor at wvara dot org

## **2015 West Valley Amateur Radio Association Board**

President: Bill Frantz, AE6JV

Vice President: Jim Peterson, K6EI

Secretary: Scott Emery, AD6RY

Treasurer: Jon Kelley, K6WV

Directors:

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The Heterodyne is published monthly by the West Valley Amateur Radio Association and sent to all club members via the web. Please obtain permission from the author to re-publish any article in this publication.

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**Hope To See You At The Meeting!**